November 8, 2002

Mr. Howard Miller
International Truck and Engine Corporation
5565 Brookville Road
Indianapolis, IN 46219

Re: Minor Source Modification No: 097-15003-00039

Dear Mr. Miller:

International Truck and Engine Corporation (Previously Indianapolis Casting Company) applied for a Part 70 operating permit on October 24, 1996 for a foundry and engine manufacturing plant. An application to modify the source was received on February 5, 2002, requesting to add two (2) small industrial natural gas fired boilers to the existing plant. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

> two (2) natural gas fired boilers, identified as Emission Units ID EU-F04N and EU-F05N, with a maximum capacity of 10.46 MMBtu/hr each, and exhausting to stacks SV-31 and SV-32.

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). The source may begin construction and operation upon issuance of this Minor Source Modification approval.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter please call (317)-327-2280 and ask for Mr. Boris Gorlin of my staff.

Sincerely,

Original Signed by John B. Chavez
John B. Chavez
Administrator

Attachments

cc: File
Compliance - Matt Mosier
IDEM - Mindy Hahn
Mr. Tom Rarick, Keramida Environmental, 330 N. College Ave., Indianapolis, IN 46202

BG

PART 70 MINOR SOURCE MODIFICATION
IDEM OFFICE OF AIR QUALITY
and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES

International Truck and Engine Corporation
5565 Brookville Road
Indianapolis, Indiana 46219

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 097-15003-00039	
Issued by: Original Singed by John B Chavez John B. Chavez Office of Environmental Services	Issuance Date: November 8, 2002

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Indianapolis office of Environmental Services (OES). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a foundry and engine assembly plant.

Responsible Official:	Howard Miller, Plant Manager
Source Address:	5565 Brookville Road, Indianapolis Indiana 46219
Mailing Address:	5565 Brookville Road, Indianapolis Indiana 46219
Phone Number:	(317) 352-4790
SIC Code:	3321 and 3714
County Location:	Marion
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rule; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

(a) Two (2) natural gas fired boilers, identified as Emission Units ID EU-F04N and EU-F05N, with a maximum capacity of 10.46 MMBtu/hr each, and exhausting to stacks SV-31 and SV-32.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (USEPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the IDEM may revoke this approval to construct if the construction of permitted emission units has not begun within eighteen (18) months from the effective date of this approval or if during the construction of this modification units work is suspended for a continuous period of one (1) year or more.

The OES and OAQ may extend such time upon satisfactory showing that an extension, formally requested by the Permittee is justified.

B.4 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60, Subpart Dc, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

(a) Commencement of construction date (no later than 30 days after such date);

(b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

(c) Actual start-up date (within 15 days after such date); and

(d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015

and

Indianapolis Office of Environmental Services (OES)
2700 South Belmont Ave.
Indianapolis, IN 46221

The application and enforcement of these standards have been delegated to the IDEM, OAQ. The requirements of 40 CFR Part 60 are also federally enforceable.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to Indianapolis OES and IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by Indianapolis OES, and IDEM, OAQ. IDEM, OAQ, and Indianapolis OES may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the OES Administrator makes a request for records to the Permittee, the Permittee shall furnish the records to the Administrator within a reasonable time.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality

100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services (OES)
2700 South Belmont Ave.
Indianapolis, IN 46221

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.11 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a flow rate or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Permittee may request the OES and IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.12 Compliance Response Plan - Preparation, Implementation, Records, and Reports[326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to Indianapolis OES and IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the OES and IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.13 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified OES and IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

OES:
Telephone Number: 317-327-2234 (ask for Air Compliance Section)
Facsimile Number: 317-327-2274

IDEM, OAQ:

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services (OES)
2700 South Belmont Ave.
Indianapolis, IN 46221

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, and Indianapolis OES may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, and Indianapolis OES by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.14 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the OES Administrator makes a request for records to the Permittee, the Permittee shall furnish the records to the OES Administrator within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.15 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services (OES)
2700 South Belmont Ave.
Indianapolis, IN 46221

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Indianapolis OES on or before the date it is due.

(c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(a) Two (2) natural gas fired boilers, identified as Emission Units ID EU-F04N and EU-F05N, with a maximum capacity of 10.46 MMBtu/hr each, and exhausting to stacks SV-31 and SV-32.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1. General Provisions Relating to NSPS [326 IAC 12-1][40CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40CFR Part 60, Subpart Dc.

D.1.2 Particulate Matter [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating) the Particulate Matter (PM) emissions from boilers Emission Units ID EU-F04N and EU-F05N shall each be limited to 0.37 pounds per million BTU of heat input.

The limitation is based on the following equation:

$$Pt \text{ ' } \frac{1.09}{Q^{0.26}} \text{ ,}$$

where Pt = Pounds of particulate matter emitted per million Btu Heat Input'
Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) hear input. The total source maximum capacity is 64 MMBtu/hr.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-7-6(1)]

The Permittee is not required to test Emission Units ID EU-F04N and EU-F05N by this permit. However, IDEM and OES may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM and OES, compliance with the Particulate Matter limit specified in Condition D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements

D.1.4 Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

(a) Pursuant to 40 CFR Part 60.48c (Reporting and Recordkeeping Requirements), records shall be maintained of the amounts of fuel combusted during each month by two (2) natural gas boilers Emission Units ID EU-F04N and EU-F05N.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: International Truck and Engine Corporation
Source Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Mailing Address: 5565 Brookville Road, Indianapolis, Indiana 46219
Source Modification No.: 097-15003-00039

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Indiana Department of Environmental Management
Office of Air Quality
and
Indianapolis Environmental Resources Management Division

Technical Support Document (TSD) for a Part 70
Minor Source Modification

Source Background and Description

Source Name:	International Truck and Engine Corporation
Source Location:	5565 Brookville Road, Indianapolis, Indiana 46219
County:	Marion
SIC Code:	3321
Operation Permit No.:	T097-6993-00039
Operation Permit Issuance Date:	Part 70 permit issuance pending
Significant Source Modification No.:	097-15003-00039
Permit Reviewer:	Boris Gorlin

The Office of Air Quality (OAQ) and Indianapolis Office of Environmental Services (OES) have reviewed a modification application from International Truck and Engine Corporation (formerly Navistar International Transportation Corp. and Indianapolis Casting Corporation) relating to the construction and operation of two new boilers. The modification consists of the following emission units:

(a) Two (2) natural gas fired boilers, identified as Emission Units ID EU-F04N and EU-F05N, with a maximum capacity of 10.46 MMBtu/hr each, and exhausting to stacks SV-31 and SV-32.

History

On September 12, 2001, the International Truck and Engine Corp. submitted an application requesting to add one new Cold Box Core Machine (097-15003-00039).

On February 5, 2002, the International Truck and Engine Corp. submitted an application requesting to add two (2) small industrial natural gas fired boilers to their existing plant (097-15003-00039).

These two application were combined into one (097-15003-00039) and processed as a Significant Source Modification.

On October 18, 2002, the OES was informed by the source that they no longer wanted to construct the cold box core machine. The cold box core machine has therefore been removed from this source modification request and the level of approval has been changed to a minor source modification based on construction of the two (2) new boilers.

On October 18, 2002, the source requested that only two new boilers Emission Units EU-F04N and EU-F05N be included into the new Minor Source Modification. This permit covers only two new boilers.

Part 70 Permit (T097-6993-00039) Application from the International Truck and Engine Corporation, formerly Indianapolis Casting Corporation, formerly Navistar, was received on October 24, 1996. Additional information was received on July 6, 1998, July 8, 1998 and July 14, 1998. This permit is pending.

Existing Approvals

(a) OP970039, issued on March 11, 1994, for all existing equipment above the permit threshold.

(b) CP950039-01, issued on May 3, 1995, for the NGD Engine Testing Facility.

(c) CP950039-02, issued on June 7, 1995, for sand handling operations controlled by the Phase VIII baghouse.

(d) CP 0970039-01, issued on June 3, 1998, for construction and operation of one (1) grey iron Induction Furnace and one (1) natural gas preheater, 20 MMBtu/hr.

(e) Significant Source Modification 097-11392-00039, issued on December 16, 1999, for construction and operation of three (3) sand receiving bins, three (3) mixers, three (3) cold box core machines, and one (1) drying oven.

(f) Minor Source Modification 097-12752-00039, issued on April 26, 2001, for one (1) casting line and one (1) engine testing cell.

Enforcement Issue

No enforcement actions are pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
SV-31	Boiler	40'	20"	2,300	180
SV-32	Boiler	40'	20"	2,300	180

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 5, 2002. Additional information was received on May 7, 2002, August 15, 2002, and October 18, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, three pages).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the USEPA”.

This table reflects the PTE before controls at maximum capacity. Control equipment and usage limits are not considered federally enforceable until it has been required in a federally enforceable permit. PTE calculations and emission factors are identified on pages 1 and 3 of appendix A.

Pollutant	Potential To Emit (tons/year)
PM	0.7
PM-10	0.7
SO_2	0.055
VOC	0.503
CO	7.69
NO_x	9.15

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Benzene	1.92E-04
Dichlorobenzene	1.10E-04
Formaldehyde	6.87E-03
Hexane	1.65E-01
Toluene	3.12E-04
Lead	4.58E-05
Cadmium	1.01E-04
Manganese	3.84E-05
Nickel	1.92E-04
Chromium	1.28E-04
TOTAL	**0.173**

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(6) as a modification that is subject to a new source performance standard (NSPS), not subject to the provisions of 40 CFR 63, Subpart B (Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources), and the NSPS is the most stringent applicable requirement.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	attainment
SO_2	maintenance
NO_x	attainment
Ozone	maintenance
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone.

(b) Marion County has been classified as attainment, maintenance, or unclassifiable for PM-10, SO_2, NO_x, CO, and Pb. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	> 100
PM-10	> 100
SO_2	> 100
VOC	> 100
CO	> 100
NOx	> 100

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.

(b) These emissions are based upon the source's 2001 STEPs Report.

Potential to Emit of Modification After Issuance

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Limited Potential to Emit (tons/year)					
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X
Boilers, EU-F04N and EU-F05N	0.696	0.636	0.055	0.503	7.69	9.15
Significant PSD threshold	25	15	40	40	100	40
PSD Applies (Yes or No)	No	No	No	No	No	No

This modification of an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. For detailed calculations, refer to Appendix A.

Federal Rule Applicability

(a) The new boilers Emission Units EU-F04N and EU-F05N are subject to the New Source

Performance Standard, 326 IAC 12, 40 CFR 60, Subpart Dc, since operation commenced after June 9, 1989 and the maximum design heat input capacity is greater than 10 MMBTU/hr but less than 100 MMBTU/hr. Monthly natural gas consumption for natural gas boilers Emission Units ID EU-F04N and EU-F05N with a combined maximum heat input capacity of 20.9 MMBTU/hr shall be recorded as per 40 CFR Part 60 Subpart Dc and USEPA memorandum of February 20, 1992. Records shall be retained for a period of at least five (5) years from the date of the generation of the measurement or record.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source as a result of the addition of this equipment.

(c) 40 CFR Part 64 Compliance Assurance Monitoring does not apply, since this source has submitted a complete Part 70 application prior to April 20, 1998, and this unit is not a large Pollutant Specific Emission Unit (PSEU).

State Rule Applicability

326 IAC 1-6-3 (Preventive Maintenance Plans)

This source is subject to 326 IAC 1-6-3 because it is required to obtain a Permit and there are existing applicable requirements. Any person responsible for operating any facility required to obtain a Permit shall prepare and maintain a Preventive Maintenance Plan which includes the following:

(a) Identification of responsible individuals for inspecting, maintaining and repairing emission control devices.

(b) Description of items and conditions that will be inspected and an inspection schedule.

(c) Identification of replacement parts in inventory for quick replacement.

The Preventive Maintenance Plan shall be submitted upon request and subject to review and approval by the OES.

326 IAC 2.4.1-3 (New Source Air Toxics)

This source modification is not a major source of hazardous air pollutants (HAPs) as defined in 40 CFR 63.41, therefore the 326 IAC 2-4.1 is not applicable.

326 IAC 1-5-2 (Emergency Reduction Plans)

The source has submitted an Emergency Reduction Plan (ERP) on October 3, 1988. The ERP has been verified to fulfil the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans).

326 IAC 1-6 (Malfunctions)

This source is subject to 326 IAC 1-6 (Malfunctions) because it is required to have a Permit under 326 IAC 2-7-12(b)(E). Any source required to obtain a Permit is then subject to the applicability of this rule. Any malfunction which lasts more than one (1) hour in duration and results in excess air pollutant(s) emissions, must verbally report such malfunction within four (4) daytime business hours. Records of all such occurrences must be kept for a period of no less than three (3) years from the date of said occurrence.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3

(Temporary Alternative Opacity Limitations), visible emissions shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) opacity in twenty-four hours (24) consecutive readings as determined by 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

326 IAC 6-1 (Particulate Rules)

Since this source is located in Marion county and has potential PM emissions greater than100 tons per year, the requirements of 326 IAC 6-1 apply.

This source is identified in the 326 IAC 6-1-12 (Particulate Matter Emission Limitations for Marion County). Therefore, pursuant to 326 IAC 6-1-1(b), particulate limitations shall not be established for combustion Emission Units EU-F04N and EU-F05N (boilers) that burn only natural gas, as long as the units continue to burn only natural gas.

326 IAC 6-2-4 (Particulate Matter)

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Llimitations for Sources of Indirect Heating) the Particulate Matter (PM) emissions from boilers Emission Units ID EU-F04N and EU-F05N shall each be limited to 0.37 pounds per million BTU of heat input.

The limitation is based on the folowing equation:

$$Pt = \frac{1.09}{Q^{0.26}},$$

where Pt = Pounds of particulate matter emitted per million Btuf Heat Input,
Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) hear input. The total source maximum capacity is 64 MMBtu/hr (according to the source's Part 70 Permit Application).

This limit is equivalent to 0.37 lb/MMBtu x 20.92 MMBtu/hr x 8,760hr/yr x 2000 lb/ton = 33.9 ton/yr of PM emission; the maximum capacity potential to emit of boilers Emission Units ID EU-F04N and EU-F05N is 0.7 ton/yr; therefore this modification will be in compliance with 326 IAC 6-2-4.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM10. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 8-1-6 (New Source General Emission Reduction Requirements)

This modification VOC potential emissions before control are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 will not apply.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs, IDEM, OAQ,

and OES, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit.

Compliance Monitoring is not required for Boilers Emission Units EU-F04N and EU-F05N. Although these units are subject to an NSPS, they do not have a control device, and their actual emissions do not exceed 25 tons per year.

Conclusion

The operation of two (2) new boilers EU-F04N and EU-F05N shall be subject to the conditions of the attached Minor Source Modification Permit No. 097-15003-00039.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

Company Name:	**International Truck and Engine Corporation**
Address City IN Zip:	**5569 Brookville Rd., Indianapolis, IN. 46219**
Permit No.:	**097-15003-00039**
Plt ID:	**097-00039**
Reviewer:	**Boris Gorlin**

Heat Input Capacity	Potential Throughput
MMBtu/hr	MMCF/yr
20.9	183.3

	PM	PM10	SO2	NOx	VOC	CO	HAPs
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0	
							*see below
Potential Emission in tons/yr	0.7	0.7	0.1	9.2	0.5	7.7	0.2

Methodology

All emission factors are based on normal firing.

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

326 IAC 6-2-4. PT = 1.09/Q^0.26 = 0.37 lb/MMBtu (Q = 64 MMBtu/hr)

Limited PM Emission: 33.9 ton/yr

Appendix A: Emissions Calculations

Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)

Gas Boiler

HAPs Emissions

Company Name:	**International Truck and Engine Corporation**
Address, City IN Zip:	**5569 Brookville Rd., Indianapolis, IN. 46219**
Permit No.:	**097-15003-00039**
Plt ID:	**097-00039**
Reviewer:	**Boris Gorlin**

AP-43 data given in lb/mmcf: To convert lb/mmcf-lb/mmbtu, divide by 1,020

HAPs - Metals

	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmcf	2.0E-04	1.2E-05	1.1E-03	1.4E-03	0.0E+00
Emission Factor in lb/mmBtu	2.0E-07	1.2E-08	1.1E-06	1.4E-06	0.0E+00
Potential Emission in tons/yr	1.80E-05	1.08E-06	9.88E-05	1.26E-04	0.00E+00

	Mercury	Manganese	Nickel	Selenium	**Total Haps**
Emission Factor in lb/mmcf	2.6E-04	3.8E-04	2.1E-03	2.4E-05	**Metals**
Emission Factor in lb/mmBtu	2.5E-07	3.7E-07	2.1E-06	2.4E-08	
Potential Emission in tons/yr	2.34E-05	3.41E-05	1.89E-04	2.16E-06	5.33E-04

HAPs - Organics

	Methylnapthaler	3-Methyl-chloranthrene	7,12-Dimethylbenz(a)anthracene	Acenapthene	Acenapthylene
Emission Factor in lb/mmcf	2.4E-05	1.8E-06	1.6E-06	1.8E-06	1.8E-06
Emission Factor in lb/mmBtu	2.4E-08	1.8E-09	1.6E-09	1.8E-09	1.8E-09
Potential Emission in tons/yr	2.16E-06	1.62E-07	1.44E-07	1.62E-07	1.62E-07

	Anthracene	Benz(a)anthracene	Benzene	Benzo(a)pyrene	Benzo(b)-flouranthene
Emission Factor in lb/mmcf	2.4E-06	1.8E-06	2.1E-03	1.2E-06	1.8E-06
Emission Factor in lb/mmBtu	2.4E-09	1.8E-09	2.1E-06	1.2E-09	1.8E-09

			Appendix A: Emissions Calculations (Cont.)						
			Company Name:	**International Truck and Engine Corporation**					
			Address, City IN Zip:	**5569 Brookville Rd., Indianapolis, IN. 46219**					
			Permit No.:	**097-15003-00039**					
			Plt ID:	**097-00039**					
			Reviewer:	**Boris Gorlin**					
Potential Emission in tons/yr			2.16E-07	1.62E-07	1.89E-04	1.08E-07	1.62E-07		
			enzo(g,h,i)peryle	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Dichlorobenzene		
Emission Factor in lb/mmcf			1.2E-06	1.8E-06	1.8E-06	1.2E-06	1.2E-03		
Emission Factor in lb/mmBtu			1.2E-09	1.8E-09	1.8E-09	1.2E-09	1.2E-06		
Potential Emission in tons/yr			1.08E-07	1.62E-07	1.62E-07	1.08E-07	1.08E-04		
			Fluoranthene	Fluorene	Formaldehyde	Hexane	Indeno(1,2,3-cd)pyrene		
Emission Factor in lb/mmcf			3.0E-06	2.8E-06	7.5E-06	1.8E+00	1.8E-06		
Emission Factor in lb/mmBtu			2.9E-09	2.7E-09	7.4E-09	1.8E-03	1.8E-09		
Potential Emission in tons/yr			2.69E-07	2.52E-07	6.74E-07	1.62E-01	1.62E-07		
			Naphthalene	Phenanthrene	**Total Haps**	**Total Haps**			
Emission Factor in lb/mmcf			6.1E-04	1.7E-05	**Organics**	**Combined**			
Emission Factor in lb/mmBtu			6.0E-07	1.7E-08					
Potential Emission in tons/yr			5.48E-05	1.53E-06	1.62E-01	1.63E-01			
Methodology									
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton									